

Patent claims

1. Use of fraction A of Quil A together with at least one other adjuvant for the
5 preparation of an adjuvant composition with synergistic effect including
enhancement of immune responses and immunomodulating activity.
2. Use according to claim 1 wherein the at least one other adjuvant is chosen
10 from saponins, naturally occurring, synthetic or semisynthetic saponin
molecules derived from crude saponin extract of Quillaja saponaria Molina;
e.g. saponins and saponin fractions from Quil A, cell wall skeleton,
blockpolymers, e.g. hydrophilic block copolymers, e.g. CRL-1005, TDM
(Threhalose di mucolate), lipopeptides, LPS and LPS-derivatives, Lipid A
15 from different bacterial species and derivatives thereof, e.g., monophosphoryl
lipid A. CpG variants, CpGODN variants, endogenous human animal
immunomodulators, e.g. GM-CSF. IL-2, adjuvant active bacterial toxins,
native or modified, e.g. cholera toxin CT, and its subcomponents CTB and
CTA1, thermolabile toxin (LT) of E. coli, or Bordetella pertussis (BP) toxin
20 and the filamentous hemagglutinin of BP .
3. Use according to claim 2 wherein the saponin fraction from Quil A are
chosen from fraction C or B of Quil A.
4. Use according to any of claims 1 –3, wherein at least one adjuvant is
25 integrated into one iscom particle.
5. Use according to any of claims 1 –4, wherein the fraction A of Quil A is
integrated into one iscom particle and at least one other adjuvant is integrated
30 into another iscom particle.

6. Use according to claim 5, wherein the at least one other adjuvant is integrated into separate iscom particles.
7. Use according to claim 4, wherein the fraction A of Quil A is integrated into one iscom particle and at least one other adjuvant is free and not integrated into any iscom particle.
8. Use according to claim 7, wherein the at least one other adjuvant that is free and not integrated into any iscom particle is monophosphoryl lipid A and/or cholera toxin CT.
9. Use according to any of claims 4-8, wherein the iscom particle is an iscom complex.
10. Use according to any of claims 4-8, wherein the iscom particle is an iscom matrix complex.
11. Use according to any of claims 3-7, or 9-10, wherein the composition comprises 50-99,9% of fragment A of Quil A and 0,1-50% of fragment C and/or fraction B and/or other fractions or derivatives of Quil A counted on the total weight of fractions A and C.
12. Use according to any of claim 11, wherein the composition comprises 75-99,9% of fragment A of Quil A and 0,1-25% of fragment C and/or fraction B and/or other fractions or derivatives of Quil A counted on the total weight of fractions A and C.
13. Use according to claim 12, wherein the iscom particle comprises 91-99,1% of fragment A of Quil A and 0,1-9% of fragment C and/or fraction B and/or other fractions or derivatives of Quil A counted on the total weight of fractions A and C.

14. Use according to any of claims 1-13, wherein the composition further comprises a pharmaceutically acceptable carrier, diluent, excipient or additive.